



# Knowledge Co-Creation Program (Group & Region Focus)

## GENERAL INFORMATION ON

### OPERATION AND MAINTENANCE OF URBAN WATER SUPPLY SYSTEM (WATER QUALITY AND PURIFICATION) (A)

課題別研修「都市上水道維持管理(浄水・水質)(A)」

JFY 2019

NO. J1904257 / ID. 1984468

Course Period in Japan: From June 26, 2019 to August 2, 2019

This information pertains to one of the JICA Knowledge Co-Creation Programs (Group & Region Focus) of the Japan International Cooperation Agency (JICA), which shall be implemented as part of the Official Development Assistance of the Government of Japan based on bilateral agreement between both Governments.

‘JICA Knowledge Co-Creation (KCC) Program’ as a New Start

In the Development Cooperation Charter which was released from the Japanese Cabinet in February 2015, it is clearly pointed out that *“In its development cooperation, Japan has maintained the spirit of jointly creating things that suit partner countries while respecting ownership, intentions and intrinsic characteristics of the country concerned based on a field-oriented approach through dialogue and collaboration. It has also maintained the approach of building reciprocal relationships with developing countries in which both sides learn from each other and grow and develop together.”* We believe that this ‘Knowledge Co-Creation Program’ will serve as a center of mutual learning process.

# ***I. Concept***

## **Background**

Safe accessible water is indispensable for human lives, improving health, reducing poverty, social well-being and sustainable development. Yet more than 1.8 billion people still do not have access to safe water, which leads to death of millions of people every year. Particularly rapid urbanization in many developing countries is increasing pressure on public institutions to provide adequate supplies of clean water to populations.

In its endeavor to reconstruct and modernize after the World War II, Japan has gone through the process of trial and error in developing urban water supply system. Such experiences have been accumulated as lessons learned.

## **For What**

This program aims to support the organizations in their attempt to develop the urban water supply system. Participating organizations are expected to fully utilize the knowledge, skills and a solution plan explored and acquired by their leading staff sent to Japan to participate in this course.

## **For Whom**

This program is designed for field engineers in urban drinking water supply management currently engaged in water quality and purification.

## **How**

- (1) Participating organizations are requested to prepare a Country Report to identify facing issues in urban water supply system, with special focus on water quality and purification. The Report will be shared with other participants and experts/lectures in Japan for further discussion. Participants are expected to recognize clear missions or assignments of what to acquire from the program before their departure.
- (2) Through the lectures and observation of the urban water supply system of Osaka City and Kyoto City in Japan, participants are expected to formulate the Action Plan in order to address the issues in their organization.
- (3) Participating organizations are required to establish a program by their own initiatives to disseminate techniques and knowledge brought back by participants. It is also expected that participants are provided with enough support to carry out their Action Plan.

## **Sustainable Development Goals (SDGs)**

The United Nations Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development were adopted by world leaders in September 2015, and call for actions by all countries. As a development cooperation agency, JICA is committed to achieving the SDGs. This program, which aims at developing the urban water supply system, especially contributes to realize the Goal 6, ensuring access to water and sanitation for all, with “achieving universal and equitable access to safe and affordable drinking water for all by 2030” as one of the targets.



## II. Description

1. **Title (J-No.): Operation and Maintenance of Urban Water Supply System (Water Quality and Purification) (A) (J19-04257)**

2. **Course Period in JAPAN**  
June 26, 2019 to August 2, 2019

3. **Target Regions or Countries:** Bangladesh, Nepal, Brazil, Tanzania, Cape Verde, Panama, Egypt and Sudan

4. **Eligible / Target Organization :** This program is designated for counterpart organizations or their related organizations of Japan's bilateral cooperation program.

5. **Course Capacity (Upper limit of Participants) :**  
8 participants

6. **Language to be used in this program :** English (Including Japanese with English interpretation.)

7. **Program Objective:**

To develop engineers' capacity to take a leading role in water quality and purification, by sharing applicable knowledge and skills gained in the program among the engineers and technicians in their countries.

8. **Overall Goal:**

Capacity of urban water supply maintenance and management in participating countries and regions is improved.

9. **Expected Module Output and Contents:**

This program consists of the following components. Details on each component are given below:

<b>(1) Preliminary Phase in a participant's home country (May - June 2019)</b> <i>Participating organizations make required preparation for the Program in the respective country.</i>		
Output	Contents	Method
1) Clarify issues faced by the participating organizations and identify the learning needs / specific assignment for participants	(1) Preliminary discussion in the organizations	Discussion in the organization
	(2) Participants to recognize clear assignment and tasks for the program.	Discussion in the organization
	(3) Submission of Inception Report	Report preparation

All participants are required to present the **Country Report** in the core phase in Japan. They are requested to bring PowerPoint (TM) slides data, including diagram, chart, photos, maps etc., for efficient presentation, which is to be sent to JICA Kansai prior to their arrival in Japan. (See the ANNEX II for more detailed information.)

<b>(2) Core Phase in Japan</b> (June 26, 2019 to August 2, 2019) <i>Participants dispatched by the organizations join the Program in Japan.</i>		
Output	Contents	Method
2) Participants are able to explain methods of water quality and purification as well as operation and maintenance techniques utilized in Osaka City and other organizations.	(1) Needs assessment discussion (participants have interview with Osaka City experts to clarify the exact needs for the program)	Discussion
	(2) Water Treatment (introduction and visit to water treatment plant, methodology of water quality control, theory of chlorination , comprehensive water treatment)	Lecture/ Observation
	(3) Review	Discussion
3) Participants are able to explain tips on operation and maintenance of purification plant and administration of water supply business.	(1) Operation and maintenance of Purification Plant	Lecture/Practice/ Observation
	(2) Operation and maintenance of Intake and Distribution Facilities	Lecture/Practice/ Observation
	(3) Maintenance of mechanical, electrical and measuring instruments and water quality control	Lecture/Practice/ Observation
	(4) Review	Discussion
4) Action Plan is formulated to disseminate knowledge and techniques on water quality and purification.	(1) Action Plan formulation	Self-learning/ Discussion
	(2) Action Plan presentation	Presentation/ Demonstration

<b>(3) Finalization Phase in a participant's home country</b> <i>Participating organizations implement the Action Plan by making use of knowledge &amp; skills brought back by participants. This phase marks the end of the Program.</i> <i>Participating organizations are required to submit <b>Progress Reports by Dec.31, 2019.</b></i>		
Output	Contents	Method
The Action Plan is implemented in participating organizations within four months after participants' return.	Implementation of dissemination program	Dissemination program
	Progress Report on dissemination program	Submission of the report to JICA local offices.

## 10. Flow of the Program:

(Before coming to Japan)

### **Issue analysis**

Applying organizations are expected to analyze issues in their organizations and make clear objectives to participate in the program.

\*The organizations are also required to make a commitment to formulate and implement the dissemination program after completion of the program in Japan.



(During stay in Japan)

### **Country Report Presentation**

- \*Issues in the participating organization
- \*What the participant expect to learn in the program



### **Action Plan Workshop**

- \*Participants will learn how to set up a theme and to draft Action Plan



### **Needs Assessment (Discussion)**

- \* Participants have individual interviews with Waterworks experts to clarify their exact needs for the program.



### **General Information on Water Supply Systems**

- \*Waterworks in Japan
- \*Water supply systems of Osaka City



### **Water Quality and Purification:**

- \*Lectures, Observations and Practices
- \*Water Quality Control and Purification methodology
- \*Visits to related plants and laboratory facilities

### **Discussion, Consultation and Facilitation:**

- \*Waterworks experts advise you to organize and summarize your learning and findings in the program



### **Formulation of Dissemination Plan (Action Plan)**

- \*Formulate a plan to disseminate techniques learnt in Japan which can be utilized to improve the issues in the participating organization
- \*Consultation and facilitation are given by experts of Osaka Municipal Waterworks Bureau.

(after the **KCCP** in Japan)



### **Implementation of the dissemination plan**

- \*Participants' organizations are required to submit the Progress Report by December 31, 2019.

**11. Topic Outlines** (subject to minor changes):

2<sup>nd</sup> & 3<sup>rd</sup> weeks (July 1 - 12)

- (1) Inception report (Country report) presentation
- (2) Needs assessment discussion
- (3) General information on water supply systems in Japan and in Osaka City.
- (4) Visit Water Treatment Plant (WTP) (Intake, Purification, Distribution)  
Observation of operation & maintenance of mechanical and electrical equipment.  
Operation and maintenance practice of electric and mechanical equipment
- (5) Operation control of WTP (sand sampling, test filter, sludge volume analysis etc.)
- (6) Fundamentals of water quality analysis (Theory of chlorination, other treatments)
- (7) Consultation and facilitation

4<sup>th</sup> to 6<sup>th</sup> week (July 16 - August 1)

- (1) Visit water distribution plant, reservoir, small/medium slow filter plant
- (2) Consultation and facilitation
- (3) Practice of water leakage detection
- (4) Visit Water Meter manufacturer
- (5) Water Treatment: Operation control of Intake, Purification and Distribution.  
Operation control of sun-dry bed.
- (6) Visit WTP using groundwater
- (7) Action Plan formulation and presentation

**12. Action Plan:** Participants are required to formulate “Action Plan” in the Program in Japan and to implement the plan after their return by following manners as one of the outputs of the Program.

**(1) Objective of the Action Plan:** To improve the technical issues of participating organizations by disseminating knowledge and information learnt in the the Program in Japan.

**(2) Target of the Action plan:** Engineers/technicians and/or management in the participating organizations or its related organizations.

**(3) Contents to be covered in the plan:**

- a) Related technical issues in the participating organization,
- b) Knowledge and information applicable to improve the issues,
- c) Relationship between the knowledge/information and the issues of the participating organization (How it can be applied),
- d) Goals to be achieved by dissemination of such knowledge/information,
- e) Specific target of the plan
- f) Methods and measures for dissemination of such knowledge/information, and
- g) Evaluation methods of achievement of the goals

**(4) Main practitioner of the Action Plan:** Participants

**(5) Role of participating organization:**

- a) To select responsible persons who should strategize and implement the Action Plan by their own initiatives in addition to participants,

- b) To support achievement of the Action Plan, and
- c) To evaluate status and degrees of achievement of the Action Plan.

**\* In case the Progress Report is not submitted from any organization by December 31, 2019, JICA may suspend acceptance of participants from that organization in the future.**



### **III. Conditions and Procedures for Application**

#### **1. Expectations for the Participating Organizations:**

- (1) This program is designed primarily for counterpart organizations of Japan's bilateral organizations that intend to address specific issues or problems identified in their operation. Participating organizations are expected to utilize the program for those specific purposes.
- (2) This program is enriched with content and facilitation schemes specially developed in collaboration with relevant prominent organizations in Japan. These special features enable the program to meet specific requirements of applying organizations and effectively facilitate them toward solutions for the issues and problems.
- (3) As this program is designed to facilitate organizations to come up with concrete solutions for their issues, participating organizations are expected to make due preparation before dispatching their participants to Japan by carrying out the activities of the Preliminary Phase described in section II-9.
- (4) Participating organizations are also expected to make the best use of the results achieved by their participants in Japan by carrying out the activities of the Finalization Phase described in section II-9.

#### **2. Nominee Qualifications:**

Applying Organizations are expected to select nominees who meet the following qualifications.

##### **(1) Essential Qualifications:**

- 1) To be engineers responsible for "Water Quality and Purification" of operation and maintenance of urban water supply.
- 2) To be currently engaged in urban water supply field offices, such as water treatment plants, and have at least five (5) years' practical experience in that area.
- 3) To have a strong commitment and capacity to disseminate acquired techniques and knowledge after return.
- 4) Language: **have a competent command of spoken and written English** which is equal to TOEFL CBT 250 or more (This KCCP includes active participation in discussions, action plan (interim report) development, thus requires high competence of English ability. Please attach an official certificate for English ability such as TOEFL, TOEIC etc. if possible.)
- 5) Health: must be in good health, both physically and mentally, to participate in the Program in Japan. Pregnant applicants are not recommended to apply due to the potential risk of health and life issues of mother and fetus.

## **(2) Recommendable Qualifications:**

- 1) Age: **under forty-five (45) years of age** for the field activity under the harsh climate.
- 2) Gender Consideration: JICA is promoting gender equality. **Women** are encouraged to apply for the program

## **3. Required Documents for Application:**

**(1) Application Form:** The Application Form is available at **the JICA office (or the Embassy of Japan)**.

**(2) Photocopy of passport:** to be submitted with the Application Form, if you possess your passport which you will carry when entering Japan for this program. If not, you are requested to submit its photocopy as soon as you obtain it.

\*Photocopy should include the followings:

Name, Date of birth, Nationality, Sex, Passport number and Expiry date.

**(3) Nominee's English Score Sheet (photocopy):** to be submitted with the Application Form, if you have any official documentation of English ability (e.g., TOEFL, TOEIC, IELTS).

**(4) Inception Report:** to be submitted with the Application Form.

Please refer to the ANNEX I of this General Information, and submit it **along with the Application Form**. Applications without the inception report will not be accepted.

## **4. Procedures for Application and Selection :**

### **(1) Submission of the Application Documents:**

Closing date for applications: **Please inquire to the JICA office (or the Embassy of Japan)**.

(After receiving applications, the JICA office (or the Embassy of Japan) will send them to **the JICA Center in JAPAN by May 13, 2019**.)

### **(2) Selection:**

After receiving the documents through proper channels from your government, the JICA office (or the Embassy of Japan) will conduct screenings, and then forward the documents to the JICA Center in Japan. Selection will be made by the JICA Center in consultation with concerned organizations in Japan. *The applying organization with the best intention to utilize the opportunity of this program will be highly valued in the selection.* Qualifications of applicants who belong to the military or other military-related organizations and/or who are enlisted in the military will be examined by the Government of Japan on a case-by-case basis, consistent with the Development Cooperation Charter of Japan, taking into consideration their duties, positions in the organization, and other relevant information in a comprehensive manner.

### **(3) Notice of Acceptance:**

Notification of results will be made by the JICA office (or the Embassy of Japan) **not later**

than May 24, 2019.

**5. Document to be submitted by accepted participants:**

**Country Report presentation slide** to be submitted by June 6, 2019

Before coming to Japan, only accepted participants are required to prepare a Country Report (See *ANNEX II for further details*). This Country Report should be sent by participants directly to JICA at [Sadatani.Toshiki@jica.go.jp](mailto:Sadatani.Toshiki@jica.go.jp) and [jicaksic-unit@jica.go.jp](mailto:jicaksic-unit@jica.go.jp) by email.

**6. Conditions for Attendance:**

- (1) to strictly adhere to the program schedule,
- (2) not to change the program topics,
- (3) not to extend the period of stay in Japan,
- (4) not to be accompanied by family members during the program,
- (5) to return to home countries at the end of the program in accordance with the travel schedule designated by JICA,
- (6) to refrain from engaging in any political activities, or any form of employment for profit or gain,
- (7) to observe Japanese laws and ordinances. If there is any violation of said laws and ordinances, participants may be required to return part or all of the program expenditure depending on the severity of said violation, and
- (8) to observe the rules and regulations of the accommodation and not to change the accommodation designated by JICA.

## IV. Administrative Arrangements

### 1. Organizer:

(1) **Name:** JICA Kansai

(2) **Contact:** Mr. SADATANI Toshiki, Program Division 2

(Sadatani.Toshiki@jica.go.jp, jicaksic-unit@jica.go.jp)

### 2. Implementing Partners:

(1) **Name: Osaka Municipal Waterworks Bureau**

**URL:** <http://www.city.osaka.lg.jp/contents/wdu030/english/>

(2) **Name: Kyoto City Water and Sewage Works Bureau**

**URL:** <http://www2.city.kyoto.lg.jp/suido/engtop.htm>

(3) **Name: Osaka Water General Service Co., Ltd.** (affiliated with Osaka Municipal Waterworks Bureau)

**URL:** <https://www.owgs.co.jp/english/>

### (4) Remark:

The city of Osaka and the city of Kyoto are situated at the heart of the Japanese archipelago. They have been developed over the centuries as a center of Japanese politics and economy.

Osaka City's water supply system became only the fourth modern supply system in the country when it was inaugurated in November 1895. Numerous expansion programs in line with the growth of the city's area and population have since brought the system's supply capacity up to its current daily level of 2.43 million m<sup>3</sup>.

Kyoto City almost relies on Lake Biwa as water source and intakes by the Lake Biwa Waterway, and partially on the Uji River. The raw water is purified in three purification plants (Keage, Matsugasaki and Shin-Yamashina). Purified water is distributed by distribution pipes and supplied from water supply equipment that leads to the residential areas.

### 3. Travel to Japan:

(1) **Air Ticket:** The cost of a round-trip ticket between an international airport designated by JICA and Japan will be borne by JICA.

(2) **Travel Insurance:** Coverage is from time of arrival up to departure in Japan.

Thus, traveling time outside Japan will not be covered.

### 4. Accommodation in Japan:

JICA will arrange the following accommodations for the participants in Japan:

JICA Kansai Center

Address: 1-5-2, Wakino-hama-Kaigandori, Chuo-ku, Kobe, Hyogo 651-0073, Japan

TEL: 81-78-261-0388 FAX: 81-78-261-0465

( "81" is the country code for Japan, and "78" is the local area code)

If there is no vacancy at JICA Kansai, JICA will arrange alternative accommodations for the participants. Please refer to facility guide of JICA Kansai at its URL, <https://www.jica.go.jp/kansai/english/office/index.html>

**5. Expenses:**

The following expenses will be provided for the participants by JICA:

- (1) Allowances for meals, living expenses, outfit, and shipping,
- (2) Expenses for study tours (basically in the form of train tickets),
- (3) Free medical care for participants who become ill after arriving in Japan (costs related to pre-existing illness, pregnancy, and dental treatment are not included), and
- (4) Expenses for program implementation, including materials.

For more details, please see “III. of ALLOWANCES” of the brochure for participants titled “KENSU-IN GUIDE BOOK,” which will be given before departure for Japan.

**6. Pre-departure Orientation:**

A pre-departure orientation will be held at the respective country's JICA office (or Embassy of Japan), to provide participants with details on travel to Japan, conditions of the participation in the program and other matters.

## ***V. Other Information***

1. Participants who have successfully completed the program will be awarded a certificate by JICA.
2. For the promotion of mutual friendship, JICA Kansai encourages international exchange between JICA participants and local communities, including school and university students as a part of development education program. JICA participants are expected to contribute by attending such activities and will possibly be asked to make presentations on the society, economy and culture of their home country.
3. Participants are recommended to bring laptop computers for their convenience, if possible. During the program, participants are required to work on the computers, including preparation of Action Plans, etc. Most of the accommodations have internet access. Also, there is a computer room in JICA Kansai where 14 desk-top computers are available with internet access.
4. Allowances, such as for living, outfit, and shipping, will be deposited to a participant's temporary bank account (opened by JICA) 2 to 5 days after their arrival in Japan. It is highly advised to bring some cash in order to cover necessary expense for this period.

It is very important that currencies of participants' countries must be exchanged to Japanese Yen at any transit airport or Kansai International Airport (KIX) in Osaka, Japan soon after their arrival. It is quite difficult to exchange money after that, due to limited availability of facility or time during the program.

# **ANNEX I**

## Operation and Maintenance of Urban Water Supply System (Water Quality and Purification) (A)

### **Inception Report**

Name : \_\_\_\_\_

Country : \_\_\_\_\_

1. General information on your city/town:  
(Geographical features, total population, social and economic status, climate, etc.)
  
2. Name of organization:  
(Organization chart, number of employees, etc.)
  
3. Your present position & duties/responsibility:
  
4. Technical issues your organization is now facing, and particular subjects your organization expects you to learn in the program.  
(Please have a discussion in your organization and fill up the charts on the next page with the consensus of your organization.)  
\*You are advised not to focus on financial or administrative issues, but on technical issues, since this program shall not contribute to improving financial nor administrative issues.
  
5. Relationship of your organization with Japan's bilateral cooperation program, if any:  
(ex. Counterpart organization of Technical Cooperation Program titled "xxxxxx".)  
\*This program targets on counterpart organizations or their related organizations of Japan's bilateral cooperation program only.

	Technical Issues	Objective Data to Suggest Issues	Expectation to the Program
➤ Organization			
➤ Water resource ➤ Water pollution ➤ Water quality control			
➤ Water Treatment Facilities			
➤ Mechanical and ➤ Electrical Facilities ➤ Measuring Equipment			
➤ Pipelines			

Organizational Viability

SWOT Analysis of your organization

<b>S</b> (Internal <b>S</b> trength)	<b>O</b> (External <b>O</b> pportunity)
<b>W</b> (Internal <b>W</b> eakness)	<b>T</b> (External <b>T</b> hreat)



## **ANNEX II**

### Operation and Maintenance of Urban Water Supply System (Water Quality and Purification) (A)

#### **Country Report**

##### **Specifications:**

- 1) Contents: as indicated below
- 2) Pages (Slides): 9 pages (slides) at a maximum
- 3) Media: PowerPoint

Page	Topics	Detailed Contents
1	(Cover page)	Program Title, Country, Participant's Name, Date
2	General information on Your Country	Geographical Position, Population, Social & Economic Statistics, etc.
3	General Information on the Current Situation of Water Supply	Please provide the following information (and other related information, if any) in the area where your organization is responsible for water supply (Examples) <ul style="list-style-type: none"><li>➤ Water source, its quality and quantity</li><li>➤ Total length of piping</li><li>➤ Water supply coverage rate</li><li>➤ NRW rate, etc.</li></ul>
4	Organization Chart & Your Duty	<ul style="list-style-type: none"><li>➤ Organization Chart where you belong to</li><li>➤ Your duties and responsibility in Your Organization</li></ul>
5 - 8	Issues & Problems Your Organization Is Currently Facing	(Examples) <ul style="list-style-type: none"><li>➤ Frequent breakdown of machines and pipes</li><li>➤ High turbidity after heavy rain</li><li>➤ Contamination of the river due to industrial waste water</li><li>➤ Lack of capable engineers, etc.</li></ul>
9	What You Are Expected to Learn in the Program in Japan	List up 3 topics and state their reasons

## *For Your Reference*

### **JICA and Capacity Development**

The key concept underpinning JICA operations since its establishment in 1974 has been the conviction that “capacity development” is central to the socioeconomic development of any country, regardless of the specific operational scheme one may be undertaking, i.e. expert assignments, development projects, development study projects, Knowledge Co-Creation programs (until 2015, so called “training”), JOCV programs, etc.

Within this wide range of programs, Knowledge Co-Creation Programs have long occupied an important place in JICA operations. Conducted in Japan, they provide partner countries with opportunities to acquire practical knowledge accumulated in Japanese society. Participants dispatched by partner countries might find useful knowledge and re-create their own knowledge for enhancement of their own capacity or that of the organization and society to which they belong.

About 460 pre-organized programs cover a wide range of professional fields, ranging from education, health, infrastructure, energy, trade and finance, to agriculture, rural development, gender mainstreaming, and environmental protection. A variety of programs are being customized to address the specific needs of different target organizations, such as policy-making organizations, service provision organizations, as well as research and academic institutions. Some programs are organized to target a certain group of countries with similar developmental challenges.

### **Japanese Development Experience**

Japan was the first non-Western country to successfully modernize its society and industrialize its economy. At the core of this process, which started more than 140 years ago, was the “*adopt and adapt*” concept by which a wide range of appropriate skills and knowledge have been imported from developed countries; these skills and knowledge have been adapted and/or improved using local skills, knowledge and initiatives. They finally became internalized in Japanese society to suit its local needs and conditions.

From engineering technology to production management methods, most of the know-how that has enabled Japan to become what it is today has emanated from this “*adoption and adaptation*” process, which, of course, has been accompanied by countless failures and errors behind the success stories. We presume that such experiences, both successful and unsuccessful, will be useful to our partners who are trying to address the challenges currently faced by developing countries.

However, it is rather challenging to share with our partners this whole body of Japan’s developmental experience. This difficulty has to do, in part, with the challenge of explaining a body of “tacit knowledge,” a type of knowledge that cannot fully be expressed in words or numbers. Adding to this difficulty are the social and cultural systems of Japan that vastly differ from those of other Western industrialized countries, and hence still remain unfamiliar to many partner countries. Simply stated, coming to Japan might be one way of overcoming such a cultural gap.

JICA, therefore, would like to invite as many leaders of partner countries as possible to come and visit us, to mingle with the Japanese people, and witness the advantages as well as the disadvantages of Japanese systems, so that integration of their findings might help them reach their developmental objectives.



**CORRESPONDENCE**

For enquiries and further information, please contact the JICA office or Embassy of Japan.

Further, address correspondence to:

**JICA Kansai Center (JICA Kansai)**

**Address: 1-5-2, Wakinohama-kaigandori, Chuo-ku, Kobe, Hyogo 651-0073, Japan**

TEL: +81-78-261-0388 FAX: +81-78-261-0465